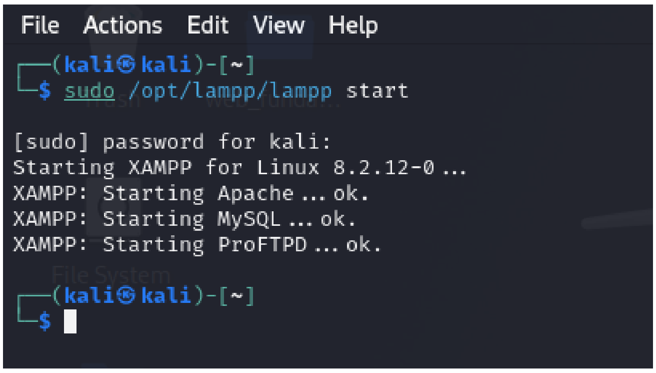
Web Fundamentals- Final Project

Kacper Waliczek

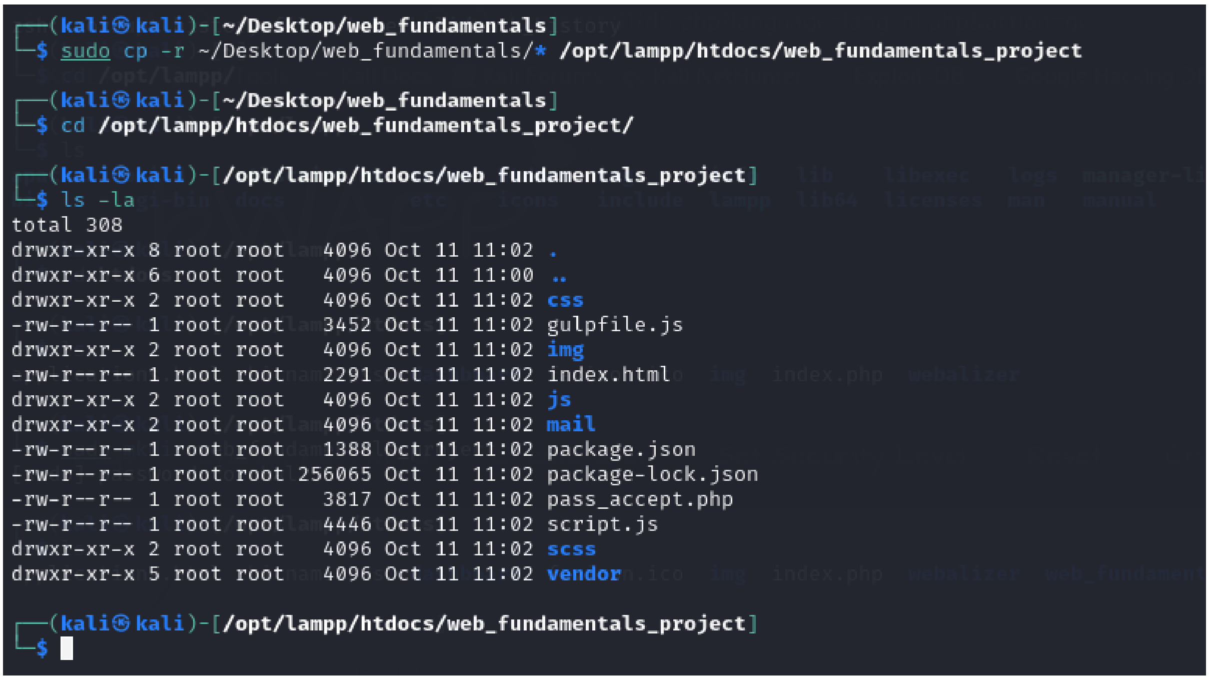
1. Configure the XAMPP server so the website will work

XAMPP is started on Kali Linux with Apache, MySQL, and ProFTPD services running. The local server is active.



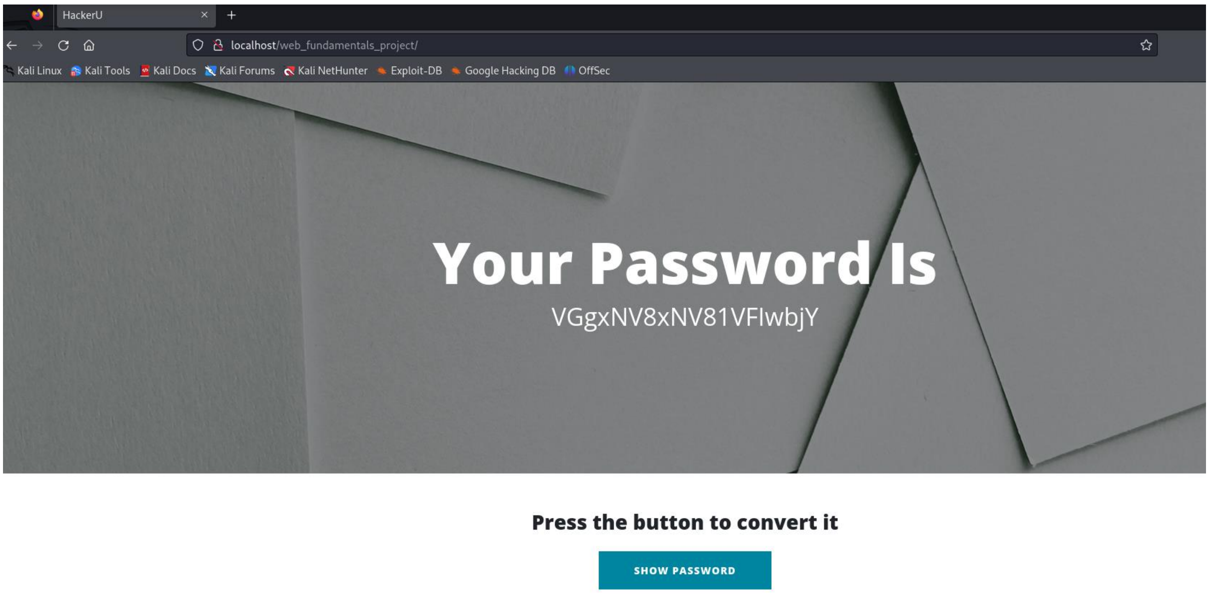
```
┌──(kali㉿kali)-[~]
└─$ sudo /opt/lampp/lampp start

[sudo] password for kali:
Starting XAMPP for Linux 8.2.12-0...
XAMPP: Starting Apache...ok.
XAMPP: Starting MySQL...ok.
XAMPP: Starting ProFTPD...ok.

┌──(kali㉿kali)-[~]
└─$ 
```

Project files are copied to /opt/lampp/htdocs/. The user navigates to the project folder within this directory.



```
┌──(kali㉿kali)-[~/Desktop/web_fundamentals]
└─$ sudo cp -r ~/Desktop/web_fundamentals/* /opt/lampp/htdocs/web_fundamentals_project

┌──(kali㉿kali)-[~/Desktop/web_fundamentals]
└─$ cd /opt/lampp/htdocs/web_fundamentals_project/

┌──(kali㉿kali)-[/opt/lampp/htdocs/web_fundamentals_project]
└─$ ls -la
total 308
drwxr-xr-x 8 root root   4096 Oct 11 11:02 .
drwxr-xr-x 6 root root   4096 Oct 11 11:00 ..
drwxr-xr-x 2 root root   4096 Oct 11 11:02 css
-rw-r--r-- 1 root root   3452 Oct 11 11:02 gulpfile.js
drwxr-xr-x 2 root root   4096 Oct 11 11:02 img
-rw-r--r-- 1 root root   2291 Oct 11 11:02 index.html
drwxr-xr-x 2 root root   4096 Oct 11 11:02 js
drwxr-xr-x 2 root root   4096 Oct 11 11:02 mail
-rw-r--r-- 1 root root   1388 Oct 11 11:02 package.json
-rw-r--r-- 1 root root 256065 Oct 11 11:02 package-lock.json
-rw-r--r-- 1 root root   3817 Oct 11 11:02 pass_accept.php
-rw-r--r-- 1 root root   4446 Oct 11 11:02 script.js
drwxr-xr-x 2 root root   4096 Oct 11 11:02 scss
drwxr-xr-x 5 root root   4096 Oct 11 11:02 vendor

┌──(kali㉿kali)-[/opt/lampp/htdocs/web_fundamentals_project]
└─$ 
```

The website is accessed via http://localhost/web_fundamentals_project/. The page displays an encoded password and a button to decode it.



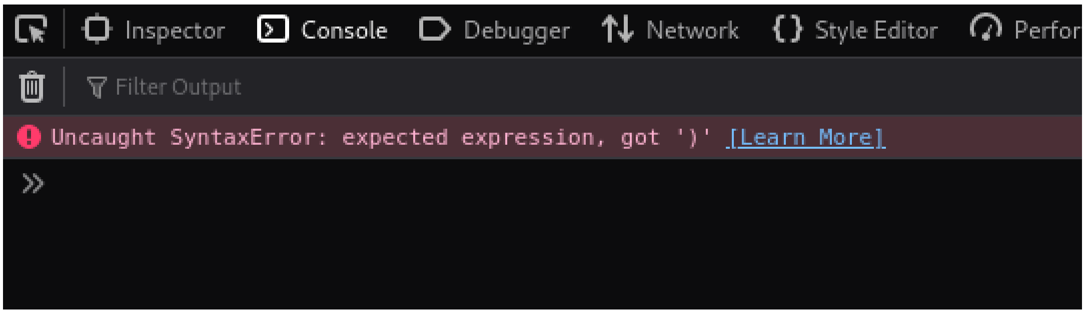
Your Password Is

VGgxNV8xNV81VFlwbjY

Press the button to convert it

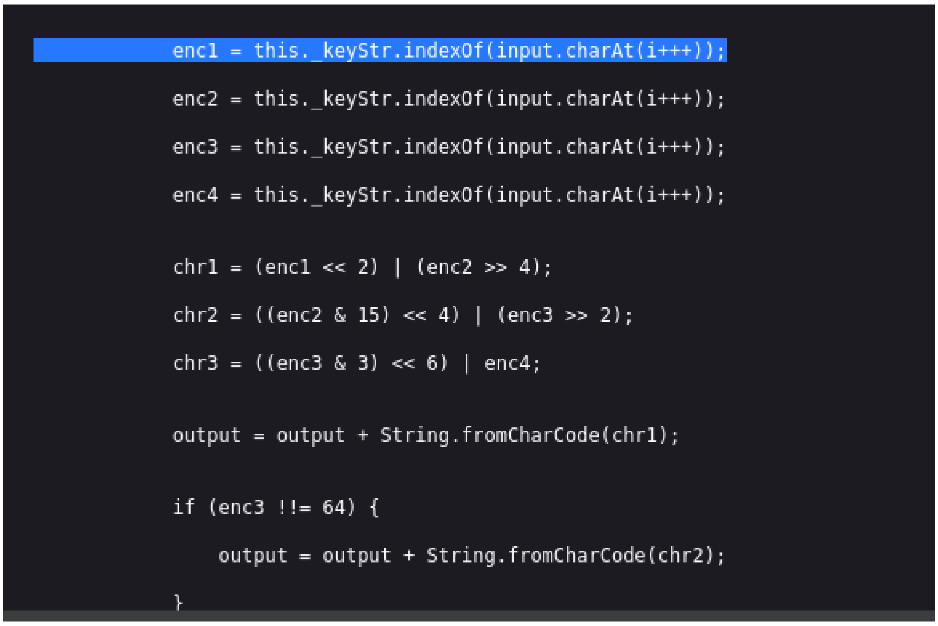
2. Fix the website's JS code. Use the debugger to inspect the errors

The console reports a syntax error: "expected expression, got ')'." This indicates there's an issue with an unclosed parenthesis in the JS code that needs fixing.



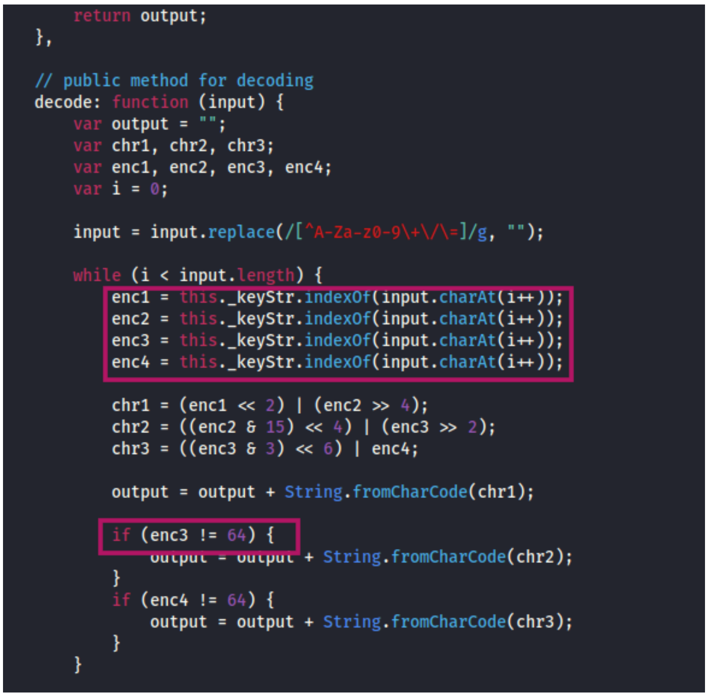
```
Uncaught SyntaxError: expected expression, got ')' [Learn More]
```

The error points to line 98 in the code, where the function keyStr.indexOf(input.charAt(i++)) may be causing issues. It's necessary to check if the increment is used correctly.



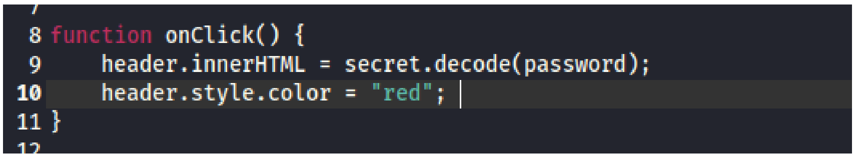
```
        enc1 = this._keyStr.indexOf(input.charAt(i+++));

        enc2 = this._keyStr.indexOf(input.charAt(i+++));

        enc3 = this._keyStr.indexOf(input.charAt(i+++));

        enc4 = this._keyStr.indexOf(input.charAt(i+++));


        chr1 = (enc1 << 2) | (enc2 >> 4);

        chr2 = ((enc2 & 15) << 4) | (enc3 >> 2);

        chr3 = ((enc3 & 3) << 6) | enc4;


        output = output + String.fromCharCode(chr1);


        if (enc3 !!= 64) {

            output = output + String.fromCharCode(chr2);

        }
```

The conditional logic was fixed by correcting the exclamation mark operator and removing unnecessary plus signs from the code.



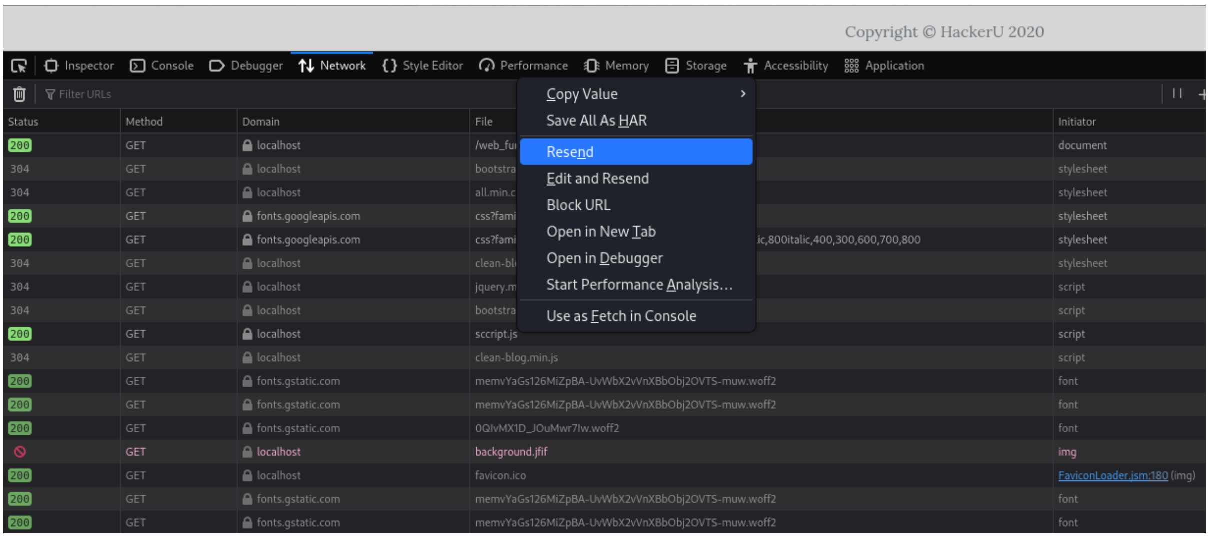
```
    return output;
},

// public method for decoding
decode: function (input) {
    var output = "";
    var chr1, chr2, chr3;
    var enc1, enc2, enc3, enc4;
    var i = 0;

    input = input.replace(/[^A-Za-z0-9\+\/\=]/g, "");

    while (i < input.length) {
        enc1 = this._keyStr.indexOf(input.charAt(i++));
        enc2 = this._keyStr.indexOf(input.charAt(i++));
        enc3 = this._keyStr.indexOf(input.charAt(i++));
        enc4 = this._keyStr.indexOf(input.charAt(i++));

        chr1 = (enc1 << 2) | (enc2 >> 4);
        chr2 = ((enc2 & 15) << 4) | (enc3 >> 2);
        chr3 = ((enc3 & 3) << 6) | enc4;

        output = output + String.fromCharCode(chr1);

        if (enc3 != 64) {
            output = output + String.fromCharCode(chr2);
        }
        if (enc4 != 64) {
            output = output + String.fromCharCode(chr3);
        }
    }
```

This shows the JavaScript code for applying a style to the header when the "Show Password" button is clicked, changing the color to red.



```
function onClick() {
    header.innerHTML = secret.decode(password);
    header.style.color = "red";
}
```

Example of attempting to resend an HTTP request using the browser’s developer tools, to debug network-related issues.



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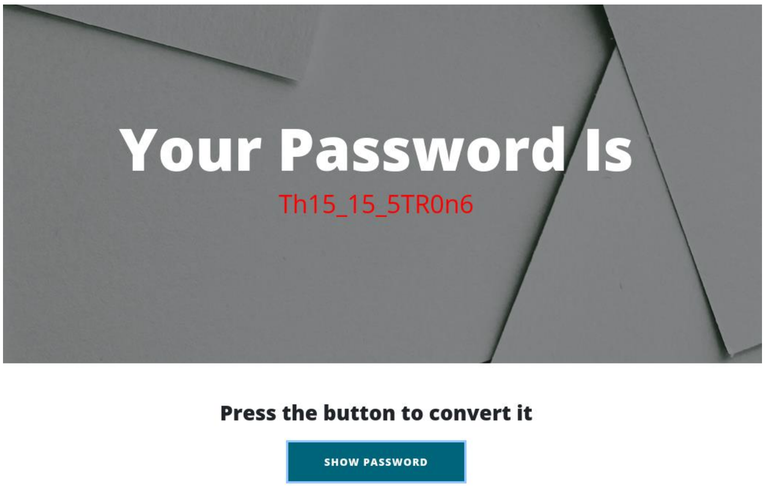
Status	Method	Domain	File		Initiator
200	GET	localhost	/web_fu		document
304	GET	localhost	bootstra		stylesheet
304	GET	localhost	all.min.c		stylesheet
200	GET	fonts.googleapis.com	css?fami		stylesheet
200	GET	fonts.googleapis.com	css?fami	ic,800italic,400,300,600,700,800	stylesheet
304	GET	localhost	clean-bl		stylesheet
304	GET	localhost	jquery.m		script
304	GET	localhost	bootstra		script
200	GET	localhost	sccript.js		script
304	GET	localhost	clean-blog.min.js		script
200	GET	fonts.gstatic.com	memvYaGs126MiZpBA-UvWbX2vVnXBbObj2OVTS-muw.woff2		font
200	GET	fonts.gstatic.com	memvYaGs126MiZpBA-UvWbX2vVnXBbObj2OVTS-muw.woff2		font
200	GET	fonts.gstatic.com	0QIvMX1D_JOuMwr7Iw.woff2		font
⊘	GET	localhost	background.jfif		img
200	GET	localhost	favicon.ico		FaviconLoader.jsm:180 (img)
200	GET	fonts.gstatic.com	memvYaGs126MiZpBA-UvWbX2vVnXBbObj2OVTS-muw.woff2		font
200	GET	fonts.gstatic.com	memvYaGs126MiZpBA-UvWbX2vVnXBbObj2OVTS-muw.woff2		font

After fixing the issues, the "Show Password" button now works, displaying the decoded password in red text, indicating that the corrections were successful.



Your Password Is

Th15_15_5TR0n6

Press the button to convert it

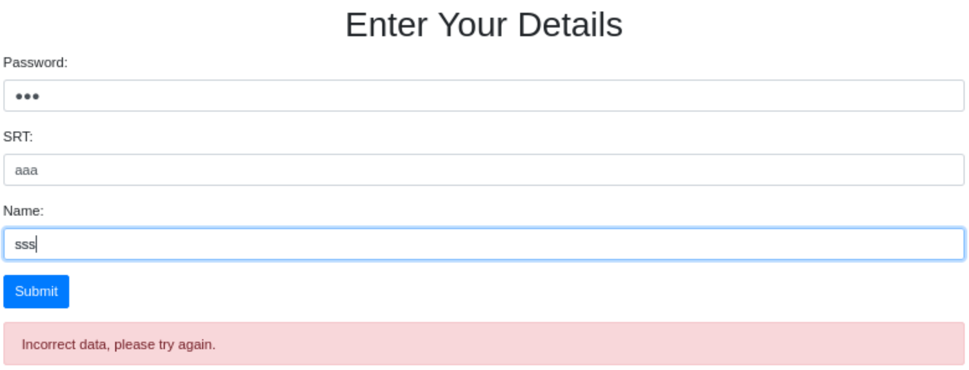
3. Perform code review on pass_accept.php file and create an HTML file which will use the PHP code with the required PHP variables.

File: form.php

- **Form Creation**: The modified version includes a properly structured HTML form with inputs for password (pws), SRT (srt), and name (fName). This allows users to submit data that is processed by the PHP code.
- **Form Handling in PHP**: The updated code checks for a POST request using $_SERVER["REQUEST_METHOD"] == "POST" to determine if the form was submitted. The password is decoded from base64, and the conditions for validating the input fields are correctly applied.
- **Success/Error Messages**: The modified code includes logic to display feedback messages (success or error) based on the validation results, enhancing user interaction.

4. Examine and use the code within HTML so it will work

After reviewing the PHP and HTML integration, the form validation now dynamically displays either a success message when the correct data is entered (as shown in the first screenshot) or an error message when the data is incorrect (second screenshot). This ensures proper user feedback based on the input validation.



Enter Your Details

Password:

•••

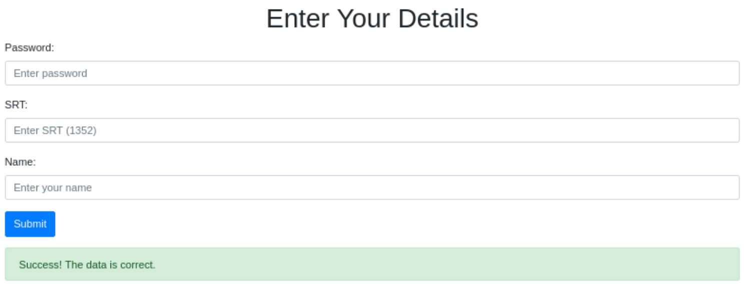
SRT:

aaa

Name:

sss

Incorrect data, please try again.



Enter Your Details

Password:

Enter password

SRT:

Enter SRT (1352)

Name:

Enter your name

Success! The data is correct.